

ABSTRACT OF THE DISCLOSURE

The present invention is directed to a wide input voltage range
surge suppressor. It includes a series circuit for attachment to an
upstream AC power input, and to a downstream load. There is a
5 nonlinear low pass L-C filter having an inductor (and in some preferred
embodiments, a low Q linear inductor) and a diode bridge, wherein the
diode bridge includes at least one large value capacitor. There are two or
three electrolytic capacitors of the nonlinear low pass L-C filter diode
bridge in preferred embodiments. There is also a two section high pass
10 filter connected to the electrolytic capacitor. This two section high pass
filter has at least two diversely rated capacitors and at least three
diversely rated resistors. A voltage offset diode is connected to the two
section high pass filter and at least one electronic switch is connected to
the voltage offset diode, with at least one capacitor connected to the
electronic switch. The electronic switch is preferably a silicon controlled
15 rectifier (SCR) switch. In some preferred embodiments of the present
invention, wide input voltage range surge suppressor there is at least one
capacitor connected to the electronic switch and it is at least one
electrolytic capacitor of the nonlinear low pass L-C filter diode bridge. In
addition to the foregoing, the present invention wide input voltage range
20 surge suppressor electronic switch includes at least one series resistor for
current drive balance assurance.